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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
09/135,804	8/18/98	Marocco	12388.03

EXAMINER	
Hien Tran	
ART UNIT	PAPER NUMBER
1764	4

DATE MAILED: _____

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel):

- (1) Atty. Warren Edmonds (3) _____
(2) Ex. Hien Tran (4) _____

Date of interview 2/2/00

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☒ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☐ No. If yes, brief description: MA

Agreement ☐ was reached with respect to some or all of the claims in question. ☒ was not reached.

Claims discussed: new proposed cls 31-47, proposed drawings 1-3

Identification of prior art discussed: Art of record (i.e. Wagner et al)

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: _____

The attorney argued that the device of Wagner et al functions differently from that of the instant inv. The instant ~~inv~~ device does not have the dead space b/c of the presence of the perforated plate. The Ex will

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

- ☒ 1. It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph below has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1-7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

- ☐ 2. Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the substance of the interview unless box 1 above is also checked.

Hien Tran
Examiner's Signature

EXAMINER'S COURTESY COPY - - DO NOT ENTER

IN THE APPLICATION OF:

APPLICANT : GREGORY M. MAROCCO

SERIAL NO.: 09/135,804

ART UNIT: 1764

FILED : AUGUST 18, 1998

EXAMINER: H. TRAN

FOR : CATALYTIC CONVERTER AND RESONATOR COMBINATION

PROPOSED AMENDMENT

This proposed amendment is for review by the Examiner prior to the personal interview scheduled for February 2, 2000 at 2:00 p.m.

IN THE CLAIMS

Please cancel Claims 1-30 without prejudice.

Please add following proposed new Claims 31-47.

1 31. (New) A catalytic converter and resonator device for
2 use in an exhaust system of an internal combustion engine, whereby
3 said device being disposed between an exhaust manifold and a
4 muffler or an exhaust tail pipe, said device comprising:
5 a canister including an inlet¹² end¹⁴, a forward¹⁶ portion, a
6 rearward portion and an outlet²⁰ end, said inlet end adjacent said
7 forward portion, said forward¹⁶ portion adjacent said rearward
8 portion, said rearward adjacent said outlet end, and said inlet

9 end, said forward portion, said rearward portion and said outlet
10 end being aligned along a common longitudinal axis;
11 said forward portion having a forward inner periphery, and
12 said rearward portion having a rearward inner periphery;
13 at least one catalytic converter element disposed within said
14 forward portion of said canister, each said at least one catalytic
15 converter element having an outer periphery;
16 each said at least one catalytic converter element including
17 a substrate having a plurality of parallel passages, said parallel
18 passages being parallel with said common longitudinal axis, and
19 said substrate being coated with a catalytically reactive member;
20 at least one resonator element disposed in said rearward
21 portion of said canister, each said at least one resonator element
22 including tubular member having an outer diameter and defining a
23 hollow core, said tubular member having a plurality of sound
24 attenuating perforations radially therethrough, each said at least
25 one resonator element having a forward end and a rearward end; and
26 means for supporting each said at least one resonator element
27 along said common longitudinal axis;
28 wherein said inner periphery of said rearward portion and said
29 outer diameter of tubular member of each said at least one
30 resonator element defining a sound attenuating plenum therebetween.

1 32. (New) The catalytic converter and resonator device
2 according to claim 31 wherein said canister consists of a monolith-
3 ic tubular shell.

1 33. (New) The catalytic converter and resonator device
2 according to claim 31, wherein at least said canister and each said
3 at least one resonator element being formed of corrosion resistant
4 steel.

1 34. (New) The catalytic converter and resonator device
2 according to claim 33, wherein said means for supporting said at
3 least one resonator including at least one plate circumscribing one
4 of said forward end and said rearward end of each said tubular
5 member for spacing each said at least one resonator element within
6 and attaching each said at least one resonator element to said
7 canister.

1 35. (New) The catalytic converter and resonator device
2 according to claim 34, wherein one said at least one plate having
3 a plurality of passages.

1 36. (New) The catalytic converter and resonator device
2 according to claim 33, wherein said means for supporting said at
3 least one resonator including a forward plate circumscribing said

4 forward end and a rearward plate circumscribing said rearward end
5 of each said tubular member for spacing each said at least one
6 resonator element within and attaching each said at least one
7 resonator element to said canister, said rearward plate including
8 a plurality of passages therethrough.

1 37. (New) The catalytic converter and resonator device
2 according to claim 36, wherein said forward plate including a
3 plurality of passages therethrough.

1 38. (New) The catalytic converter and resonator device
2 according to claim 36, wherein said forward plate being solid.

1 39. (New) The catalytic converter and resonator device
2 according to claim 33, said means for supporting each said at least
3 one resonator including at least one plate circumscribing said
4 forward end of each said tubular member for spacing each said at
5 least one resonator element within said canister, said rearward end
6 of said tubular member of each said at least one resonator element
7 extending outwardly beyond said outlet end of said canister;
8 said at least one resonator element being selectively axially
9 positionable within said canister for attenuating exhaust sound
10 frequencies in a predetermined sound frequency range; and

11 means for attaching each said at least one plate to said
12 canister at an axial position for attenuating exhaust sound
13 frequencies in a predetermined sound frequency range.

1 40. (New) The catalytic converter and resonator device
2 according to claim 39, said canister further including a monolithic
3 tubular shell and said sound attenuating plenum including sound
4 absorbent material disposed therein.

1 41. (New) The catalytic converter and resonator device
2 according to claim 40, each said at least one plate having a
3 plurality of passages therethrough and said outlet end of said
4 canister being sealed to the extended said rearward end of said
5 tubular member.

1 42. (New) The catalytic converter and resonator device
2 according to claim 40, each said at least one plate being solid and
3 said outlet end of said canister being sealed to the extended said
4 rearward end of said tubular member.

1 43. (New) The catalytic converter and resonator device
2 according to claim 31, wherein said outer periphery of said
3 catalytic converter element and said forward inner periphery of
4 said canister are substantially equal, with said catalytic

5 converter element being sealed to said canister for precluding
6 exhaust gas flow therebetween.

1 44. (New) The catalytic converter and resonator device
2 according to claim 43, wherein each of said passages of said
3 substrate has a width substantially greater than .040 inch, for
4 reducing the restriction of exhaust gas flow therethrough.

1 45. (New) The catalytic converter and resonator device
2 according to claim 44, wherein said substrate walls of each said at
3 least one catalytic converter element are thin, for providing a
4 large surface area to substrate volume ratio for accelerating heat
5 transfer to said substrate walls, for correspondingly accelerating
6 the catalytic reaction within said catalytic converter element of
7 exhaust gases with said catalytically reactive member.

1 46. (New) The catalytic converter and resonator device
2 according to claim 45, wherein said substrate of each said at least
3 one catalytic converter element being formed of material selected
4 from the group consisting of cordierite ceramics.

1 47. (New) The catalytic converter and resonator device
2 according to claim 46, wherein said at least one catalytic
3 converter element includes a plurality of catalytic converter

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4 elements axially and concentrically disposed within said forward
5 portion of said canister, said catalytic converter elements being
6 spaced apart from one another to define at least one catalytic
7 converter plenum therebetween and further being spaced apart from
8 said forward end of said resonator element to define an intermedi-
9 ate plenum therebetween.

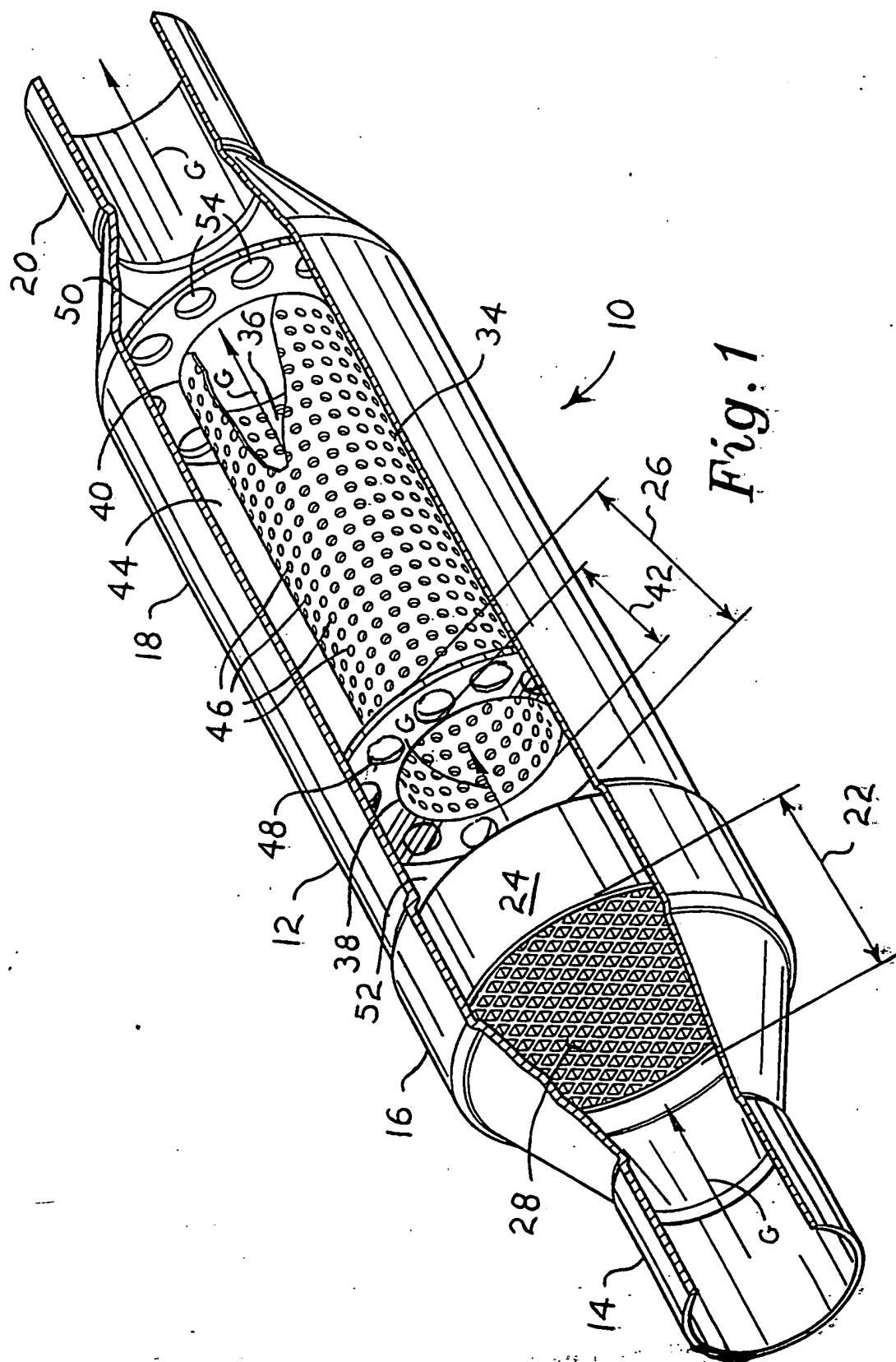


Fig. 1

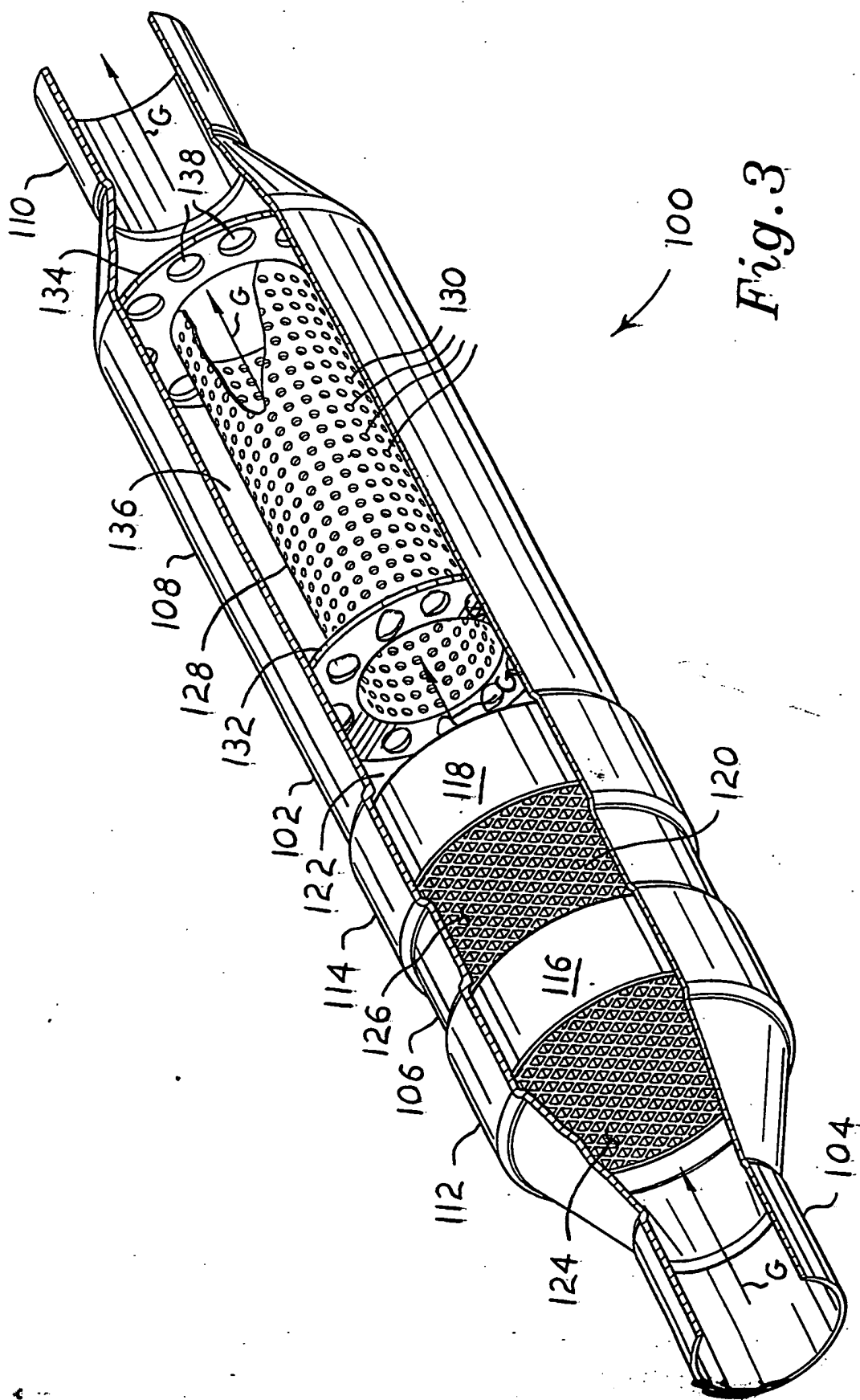


Fig. 3

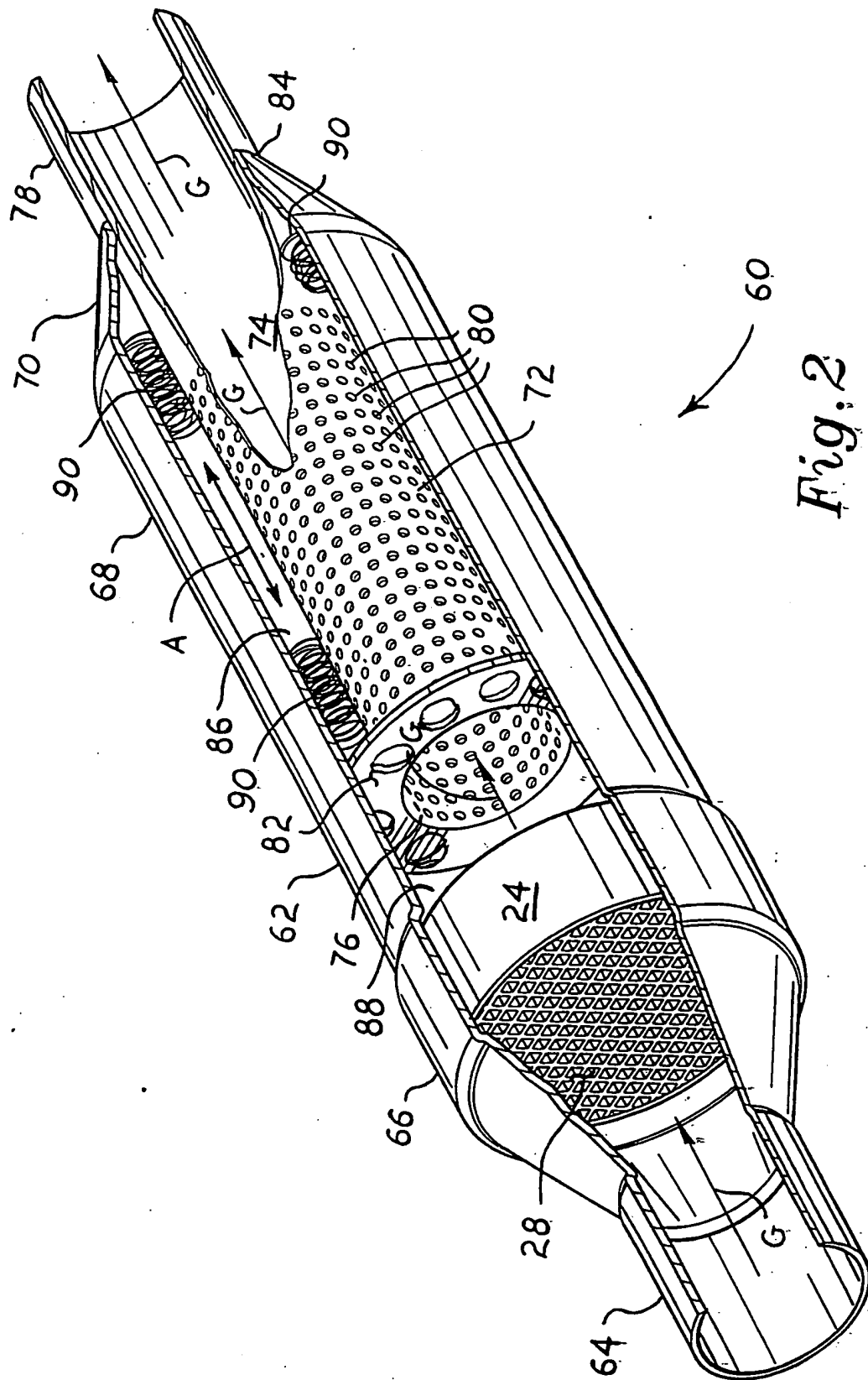


Fig. 2